PATENT

I hereby certify that on the date specified below, this correspondence is being deposited with the United States Postal Service as first-class mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Timothy B. Cowles, Michael A.

Attorney Docket No.: 500792.05

Shore and Patrick J. Mullarkey

Patent No. : US 6,850,457 B2

Serial No.

: 10/043,682

Issue Date: February 1, 2005

Filed

: January 10, 2002

Title

: REFRESH CONTROLLER AND ADDRESS REMAPPING CIRCUIT AND METHOD

FOR DUAL MODE FULL/REDUCED DENSITY DRAMS

REQUEST FOR CERTIFICATE OF CORRECTION

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

A Certificate of Correction under 35 U.S.C. § 254 is respectfully requested for the above-identified patent in order to correct Patent and Trademark Office errors made during the printing of the patent. The changes in the patent needed to correct the errors are as follows:

Column, Line	Reads	Should Read
Item (75), Line 1	"Timoty B. Cowles,"	Timothy B. Cowles,
Item (57), Line 19	"with system adapted"	with systems adapted
Column 1, Line 38	"memory cell in an"	memory cell in
Column 1, Line 46	"or decreased"	or decrease

Column 1, Line 56	"in the art. DRAM memory"	in the art, DRAM memory
Column 2, Line 2	"logic level of can no longer"	logic level can no longer
Column 2, Line 5	"example, as a result"	example, a result
Column 2, Line 11	"provided to redirected"	provided to redirect
Column 2, Line 14	"problems is disclosed"	problem is disclosed
Column 2, Line 21	"complimentary"	complementary
Column 2, Line 24	"to store in"	to store
Column 2, Lines 65 and 67	"DRAM's"	DRAMs
Column 3, Line 10	"command are applied"	commands are applied
Column 4, Line 7	"receiving a time-"	receiving time
Column 4, Line 34	"applied the"	applied to the
Column 4, Line 49	"RAO is high,"	RA0 is high,
Column 5, Line 14	"for clarity, it will be understood"	for clarity. It will be understood
Column 5, Line 20	"DO"	D 0
Column 5, Lines 25 and 42	"complimentary"	complementary
Column 5, Line 37	"then energized"	then energizes
Column 6, Line 35	"DO"	D 0
Column 6, Lines 43 and 65	"complimentary"	complementary
Column 7, Lines 3 and 7-8	"complimentary"	complementary
Column 7, Line 5	"DO and its compliment DO*"	D0 and its complement D0*
Column 7, Lines 22 and 24	"VT"	V _T
Column 7, Lines 35 and 48	"compliment"	complement

Column 7, Line 39	"only one digit lines"	only one digit line	
Column 7, Lines 57-58	"each Memory Address"	each memory address	
Column 8, Line 5	"one of the row address"	one of the row addresses	
Column 8, Lines 38 and 52	"complimentary"	complementary	
Column 8, Line 55	"is operates in"	operates in	
Column 9, Line 21	"is increment"	is incremented	
Column 9, Line 47	"one-eight"	one-eighth	
Column 10, Line 50	"compliment"	complement	
Column 10, Line 53	"thereby applying causing an"	thereby causing an	
Column 10, Line 62	"in the fill density mode,"	in the full density mode,	
Column 11, Line 6	"thereby closing"	thereby causing	
Column 11, Line 31	"one of the row address"	one of the row addresses	
Column 11, Line 37	"address bids"	address bits	
Column 11, Line 61	"showed"	shown	
Column 12, Lines 11, 14 and 18	"is coupled"	are coupled	
Column 12, Line 49	"specific column"	specific row	

The above errors for which correction is requested under 35 U.S.C. § 254 were made in the printing of the patent or in the original application. The errors are considered sufficiently important to justify the processing of a Certificate of Correction under 35 U.S.C. § 254. A Form PTO-1050, in duplicate, is enclosed herewith.

The Commissioner is hereby authorized to charge payment of any fees associated with this communication to Deposit Account No. 50-1266. A duplicate copy of this sheet is enclosed.

Favorable consideration of this Request is respectfully requested.

Respectfully submitted,

Date: 100- 20, 2006

Edward W. Bulchis, Reg. No. 26,847

Customer No. 27,076
Dorsey & Whitney LLP
1420 Fifth Avenue, Suite 3400
Seattle, WA 98101
(206) 903-8785
Attorney for Applicant(s)

EWB:tdp

Enclosures:

Postcard

Form PTO-1050 (+ copy)

H:\IP\Clients\Micron Technology\700\500792.05\500792.05 req cert correct.doc

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO.

US 6,850,457 B2

DATED

February 1, 2005

INVENTOR(S)

Timothy B. Cowles, Michael A. Shore and Patrick J. Mullarkey

It is certified that errors appear in the above identified patent and that said Letters

Patent is hereby corrected as shown below:

Column, Line	Reads	Should Read
Item (75), Line 1	"Timoty B. Cowles,"	Timothy B. Cowles,
Item (57), Line 19	"with system adapted"	with systems adapted
Column 1, Line 38	"memory cell in an"	memory cell in
Column 1, Line 46	"or decreased"	or decrease
Column 1, Line 56	"in the art. DRAM memory"	in the art, DRAM memory
Column 2, Line 2	"logic level of can no	logic level can no
	longer"	longer
Column 2, Line 5	"example, as a result"	example, a result
Column 2, Line 11	"provided to redirected"	provided to redirect
Column 2, Line 14	"problems is disclosed"	problem is disclosed
Column 2, Line 21	"complimentary"	complementary
Column 2, Line 24	"to store in"	to store
Column 2, Lines 65 and 67	"DRAM's"	DRAMs
Column 3, Line 10	"command are applied"	commands are applied
Column 4, Line 7	"receiving a time-"	receiving time
Column 4, Line 34	"applied the"	applied to the
Column 4, Line 49	"RAO is high,"	RA0 is high,
Column 5, Line 14	"for clarity, it will be understood"	for clarity. It will be understood
Column 5, Line 20	"DO"	D 0
Column 5, Lines 25 and 42	"complimentary"	complementary

Column 5, Line 37	"then energized"	then energizes
Column 6, Line 35	"DO"	D 0
Column 6, Lines 43 and 65	"complimentary"	complementary
Column 7, Lines 3 and 7-8	"complimentary"	complementary
Column 7, Line 5	"DO and its compliment DO*"	D0 and its complement D0*
Column 7, Lines 22 and 24	"VT"	V _T
Column 7, Lines 35 and 48	"compliment"	complement
Column 7, Line 39	"only one digit lines"	only one digit line
Column 7, Lines 57-58	"each Memory Address"	each memory address
Column 8, Line 5	"one of the row address"	one of the row addresses
Column 8, Lines 38 and 52	"complimentary"	complementary
Column 8, Line 55	"is operates in"	operates in
Column 9, Line 21	"is increment"	is incremented
Column 9, Line 47	"one-eight"	one-eighth
Column 10, Line 50	"compliment"	complement
Column 10, Line 53	"thereby applying causing an"	thereby causing an
Column 10, Line 62	"in the fill density mode,"	in the full density mode,
Column 11, Line 6	"thereby closing"	thereby causing
Column 11, Line 31	"one of the row address"	one of the row addresses
Column 11, Line 37	"address bids"	address bits
Column 11, Line 61	"showed"	shown
Column 12, Lines 11, 14 and 18	"is coupled"	are coupled
 Column 12, Line 49	"specific column"	specific row

MAILING ADDRESS OF SENDER:

DORSEY & WHITNEY LLP 1420 Fifth Avenue, Suite 3400 Seattle, Washington 98101

FORM PTO-1050 (REV. 3-82)

Patent No. <u>US 6,850,457 B2</u>

No. add'l. copies @ .30 per page





I hereby certify that on the date specified below, this correspondence is being deposited with the United States Postal Service as first-class mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Timothy B. Cowles, Michael A.

Attorney Docket No.: 500792.05 Shore and Patrick J. Mullarkey

Patent No.: US 6,850,457 B2

Serial No.

: 10/043,682

Issue Date: February 1, 2005

Filed

: January 10, 2002

Title

: REFRESH CONTROLLER AND ADDRESS REMAPPING CIRCUIT AND METHOD

FOR DUAL MODE FULL/REDUCED DENSITY DRAMS

REQUEST FOR CERTIFICATE OF CORRECTION

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

A Certificate of Correction under 35 U.S.C. § 254 is respectfully requested for the above-identified patent in order to correct Patent and Trademark Office errors made during the printing of the patent. The changes in the patent needed to correct the errors are as follows:

Column, Line	Reads	Should Read
Item (75), Line 1	"Timoty B. Cowles,"	Timothy B. Cowles,
Item (57), Line 19	"with system adapted"	with systems adapted
Column 1, Line 38	"memory cell in an"	memory cell in
Column 1, Line 46	"or decreased"	or decrease

Column 1, Line 56	"in the art. DRAM memory"	in the art, DRAM memory
Column 2, Line 2	"logic level of can no longer"	logic level can no longer
Column 2, Line 5	"example, as a result"	example, a result
Column 2, Line 11	"provided to redirected"	provided to redirect
Column 2, Line 14	"problems is disclosed"	problem is disclosed
Column 2, Line 21	"complimentary"	complementary
Column 2, Line 24	"to store in"	to store
Column 2, Lines 65 and 67	"DRAM's"	DRAMs
Column 3, Line 10	"command are applied"	commands are applied
Column 4, Line 7	"receiving a time-"	receiving time
Column 4, Line 34	"applied the"	applied to the
Column 4, Line 49	"RAO is high,"	RA0 is high,
Column 5, Line 14	"for clarity, it will be understood"	for clarity. It will be understood
Column 5, Line 20	"DO"	D0
Column 5, Lines 25 and 42	"complimentary"	complementary
Column 5, Line 37	"then energized"	then energizes
Column 6, Line 35	"DO"	D0
Column 6, Lines 43 and 65	"complimentary"	complementary
Column 7, Lines 3 and 7-8	"complimentary"	complementary
Column 7, Line 5	"DO and its compliment DO*"	D0 and its complement D0*
Column 7, Lines 22 and 24	"VT"	V _T
Column 7, Lines 35 and 48	"compliment"	complement

Column 7, Line 39	"only one digit lines"	only one digit line
Column 7, Lines 57-58	"each Memory Address"	each memory address
Column 8, Line 5	"one of the row address"	one of the row addresses
Column 8, Lines 38 and 52	"complimentary"	complementary
Column 8, Line 55	"is operates in"	operates in
Column 9, Line 21	"is increment"	is incremented
Column 9, Line 47	"one-eight"	one-eighth
Column 10, Line 50	"compliment"	complement
Column 10, Line 53	"thereby applying causing an"	thereby causing an
Column 10, Line 62	"in the fill density mode,"	in the full density mode,
Column 11, Line 6	"thereby closing"	thereby causing
Column 11, Line 31	"one of the row address"	one of the row addresses
Column 11, Line 37	"address bids"	address bits
Column 11, Line 61	"showed"	shown
Column 12, Lines 11, 14 and 18	"is coupled"	are coupled
Column 12, Line 49	"specific column"	specific row

The above errors for which correction is requested under 35 U.S.C. § 254 were made in the printing of the patent or in the original application. The errors are considered sufficiently important to justify the processing of a Certificate of Correction under 35 U.S.C. § 254. A Form PTO-1050, in duplicate, is enclosed herewith.

The Commissioner is hereby authorized to charge payment of any fees associated with this communication to Deposit Account No. 50-1266. A duplicate copy of this sheet is enclosed.

Favorable consideration of this Request is respectfully requested.

Respectfully submitted,

Date: 100- 20, 2006

Edward W. Bulchis, Reg. No. 26,847

Customer No. 27,076 Dorsey & Whitney LLP 1420 Fifth Avenue, Suite 3400 Seattle, WA 98101 (206) 903-8785

Attorney for Applicant(s)

EWB:tdp

Enclosures:

Postcard

Form PTO-1050 (+ copy)

H:\IP\Clients\Micron Technology\700\500792.05\500792.05 req cert correct.doc

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO.

US 6,850,457 B2

DATED

February 1, 2005

INVENTOR(S)

Timothy B. Cowles, Michael A. Shore and Patrick J. Mullarkey

It is certified that errors appear in the above identified patent and that said Letters

Patent is hereby corrected as shown below:

Column, Line	Reads	Should Read
Item (75), Line 1	"Timoty B. Cowles,"	Timothy B. Cowles,
Item (57), Line 19	"with system adapted"	with systems adapted
Column 1, Line 38	"memory cell in an"	memory cell in
Column 1, Line 46	"or decreased"	or decrease
Column 1, Line 56	"in the art. DRAM	in the art, DRAM
Column 2, Line 2	memory" "logic level of can no longer"	memorylogic level can no longer
Column 2, Line 5	"example, as a result"	example, a result
Column 2, Line 11	"provided to redirected"	provided to redirect
Column 2, Line 14	"problems is disclosed"	problem is disclosed
Column 2, Line 21	"complimentary"	complementary
Column 2, Line 24	"to store in"	to store
Column 2, Lines 65 and 67	"DRAM's"	DRAMs
Column 3, Line 10	"command are applied"	commands are applied
Column 4, Line 7	"receiving a time-"	receiving time
Column 4, Line 34	"applied the"	applied to the
Column 4, Line 49	"RAO is high,"	RA0 is high,
Column 5, Line 14	"for clarity, it will be understood"	for clarity. It will be understood
Column 5, Line 20	"DO"	D0
Column 5, Lines 25 and 42	"complimentary"	complementary

Column 5, Line 37	"then energized"	then energizes
Column 6, Line 35	"DO"	D 0
Column 6, Lines 43 and 65	"complimentary"	complementary
Column 7, Lines 3 and 7-8	"complimentary"	complementary
Column 7, Line 5	"DO and its compliment DO*"	D0 and its complement D0*
Column 7, Lines 22 and 24	"VT"	V _T
Column 7, Lines 35 and 48	"compliment"	complement
Column 7, Line 39	"only one digit lines"	only one digit line
Column 7, Lines 57-58	"each Memory Address"	each memory address
Column 8, Line 5	"one of the row address"	one of the row addresses
Column 8, Lines 38 and 52	"complimentary"	complementary
Column 8, Line 55	"is operates in"	operates in
Column 9, Line 21	"is increment"	is incremented
Column 9, Line 47	"one-eight"	one-eighth
Column 10, Line 50	"compliment"	complement
Column 10, Line 53	"thereby applying causing an"	thereby causing an
Column 10, Line 62	"in the fill density mode,"	in the full density mode,
Column 11, Line 6	"thereby closing"	thereby causing
Column 11, Line 31	"one of the row address"	one of the row addresses
Column 11, Line 37	"address bids"	address bits
Column 11, Line 61	"showed"	shown
Column 12, Lines 11, 14 and 18	"is coupled"	are coupled
Column 12, Line 49	"specific column"	specific row

MAILING ADDRESS OF SENDER:

DORSEY & WHITNEY LLP 1420 Fifth Avenue, Suite 3400 Seattle, Washington 98101

FORM PTO-1050 (REV. 3-82)

H:\IP\Clients\Micron Technology\700\500792.05\500792.05 PTO 1050.doc

P	atent	No.	US	6	850	457	B2

No. add'l. copies

@ .30 per page